

M 5.4, 7km SSE of New Mirpur, Pakistan

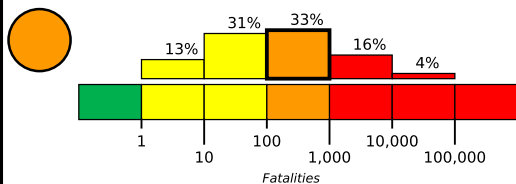
Origin Time: 2019-09-24 11:01:54 UTC (Tue 16:01:54 local)

Location: 33.0731° N 73.7903° E Depth: 10.0 km

PAGER
Version 6

Created: 3 weeks, 6 days after earthquake

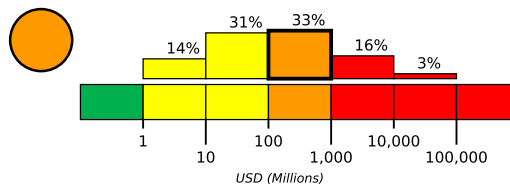
Estimated Fatalities



Orange alert for shaking-related fatalities and economic losses. Significant casualties and damage are likely and the disaster is potentially widespread. Past orange alerts have required a regional or national level response.

Estimated economic losses are less than 1% of GDP of Pakistan.

Estimated Economic Losses

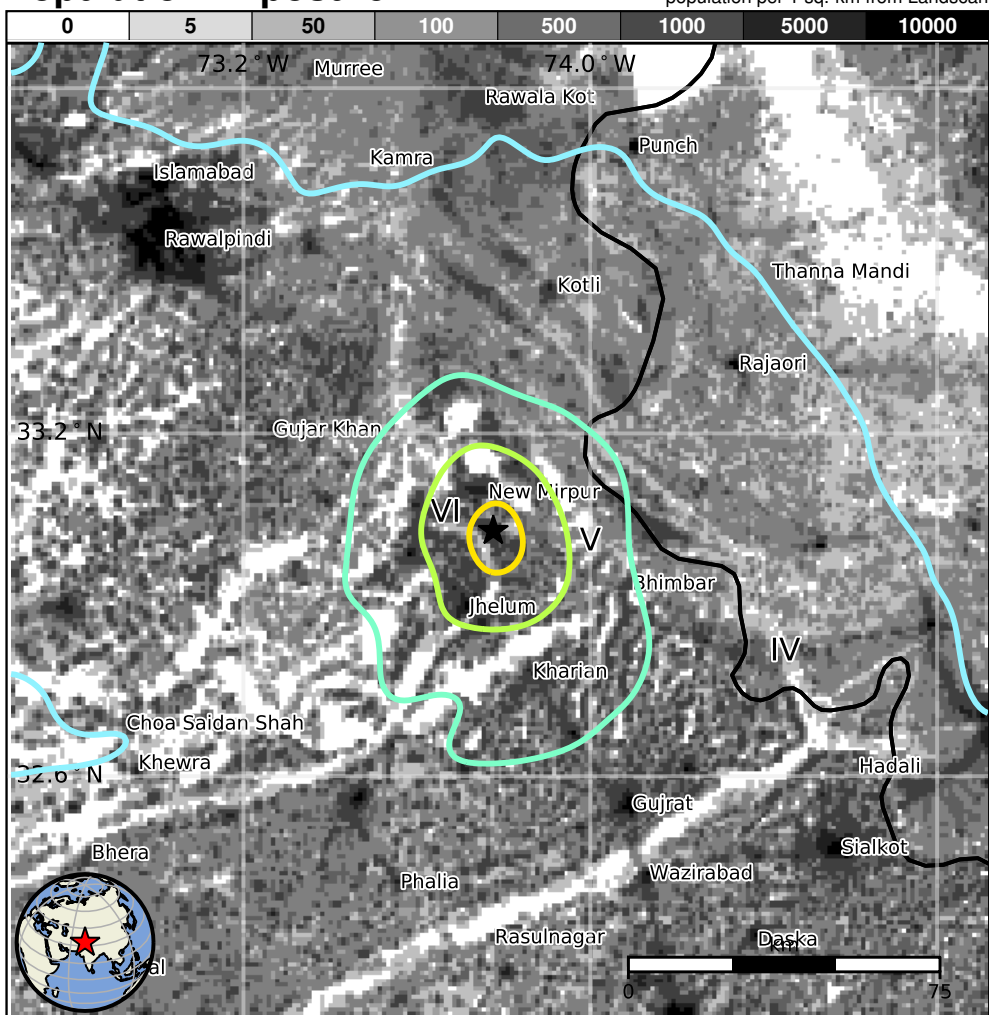


Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)		—*	2,646k*	22,909k	1,975k	1,047k	226k	0	0	0
ESTIMATED MODIFIED MERCALLI INTENSITY		I	II-III	IV	V	VI	VII	VIII	IX	X+
PERCEIVED SHAKING		Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	Resistant Structures	None	None	None	V. Light	Light	Moderate	Mod./Heavy	Heavy	V. Heavy
	Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. Heavy	V. Heavy

*Estimated exposure only includes population within the map area.

Population Exposure



Structures

Overall, the population in this region resides in structures that are extremely vulnerable to earthquake shaking, though some resistant structures exist. The predominant vulnerable building types are adobe block and rubble/field stone masonry construction.

Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1981-09-12	290	6.1	VIII(8k)	220
1974-12-28	231	6.2	VIII(6k)	5k
2005-10-08	155	7.6	IX(337k)	87k

Recent earthquakes in this area have caused secondary hazards such as landslides and liquefaction that might have contributed to losses.

Selected City Exposure

from GeoNames.org

MMI	City	Population
VI	New Mirpur	<1k
VI	Jhelum	164k
VI	Sarai Alamgir	44k
V	Kharian	81k
V	Mehmand Chak	5k
V	Lala Musa	65k
V	Bhimbar	343k
IV	Rawalpindi	1,743k
IV	Sialkot	477k
IV	Kotli	640k
IV	Islamabad	602k

bold cities appear on map.

(k = x1000)

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.

<https://earthquake.usgs.gov/earthquakes/eventpage/us60005mqp#pager>

Event ID: us60005mqp